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(54) Title: SINGLE PRIMER PCR AMPLIFICATION OF RNA

(57) Abstract: The invention provides methods and compositions for amplifying RNA sequences by: a) hybridizing to a target RNA a first primer comprising a 3' target RNA hybridizing sequence and a first 5' defined amplifiable sequence; b) extending the first primer with a reverse transcriptase to form a first cDNA strand; c) hybridizing to the first cDNA strand a second primer comprising a 3' random cDNA hybridizing sequence and a second 5' defined amplifiable sequence; d) extending the second primer with a DNA polymerase to form a second cDNA strand; and e) amplifying the second cDNA strand with a third primer comprising the first 5' defined amplifiable sequence.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, MEDLINE, CHEM ABS Data, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 104 792 A (FEINSTONE STEPHEN ET AL) 14 April 1992 (1992-04-14) cited in the application	17-20
Y	column 1, line 26 -column 1, line 46 column 2, line 37 -column 3, line 2 column 4, line 27 -column 4, line 32 claim 1	1-16
Y	US 5 310 652 A (GELFAND DAVID H ET AL) 10 May 1994 (1994-05-10) column 7, line 49 -column 8, line 54 column 18, line 24 -column 18, line 37 examples V,X	1-16
Y	US 5 712 127 A (SOOKNANAN ROY R ET AL) 27 January 1998 (1998-01-27) column 12, line 39 -column 12, line 64	1-16
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>AKIN AYDEMIR ET AL: "Amplification and cloning of infectious bursal disease virus genomic RNA segments by long and accurate PCR."</p> <p>JOURNAL OF VIROLOGICAL METHODS, vol. 82, no. 1, 1999, pages 55-61, XP002223167</p> <p>ISSN: 0166-0934</p> <p>abstract</p> <p>page 56, right-hand column</p> <p>page 57, right-hand column</p>	1-16
Y	<p>AUER T ET AL: "SELECTIVE AMPLIFICATION OF RNA UTILIZING THE NUCLEOTIDE ANALOG DITP AND THERMUS THERMOPHILUS DNA POLYMERASE"</p> <p>NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 24, no. 24, 1996, pages 5021-5025, XP002916438</p> <p>ISSN: 0305-1048</p> <p>abstract</p> <p>page 5022</p> <p>page 5024, right-hand column, last paragraph -page 5025, paragraph 1</p> <p>figures 1-4</p>	1-16

INTERNATIONAL SEARCH REPORT

In relation on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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US 5310652	A	10-05-1994	US 5322770 A US 4889818 A US 5618703 A US 5641864 A US 5693517 A US 5561058 A US 5795762 A US 5466591 A AT 151112 T AU 656315 B2 DE 69030386 D1 DE 69030386 T2 EP 0506889 A1 GR 3023862 T3 AT 176002 T AU 665338 B2 AU 8532791 A CA 2087724 A1 DE 69130800 D1 DE 69130800 T2 DK 540693 T3 EP 0540693 A1 ES 2128323 T3 GR 3029987 T3 JP 6501612 T WO 9201814 A2 US 5418149 A AU 7244491 A CA 2071213 A1 DK 506889 T3 ES 2100945 T3 JP 2968585 B2 JP 5505105 T US 5407800 A WO 9109944 A2 AT 169337 T AU 681387 B2 AU 6329694 A AU 646430 B2 AU 7176491 A CA 2071196 A1 DE 69032543 D1 DE 69032543 T2 DK 506825 T3 EP 0506825 A1 ES 2121777 T3 JP 2790448 B2 JP 9224682 A JP 2774192 B2 JP 5504887 T	21-06-1994 26-12-1989 08-04-1997 24-06-1997 02-12-1997 01-10-1996 18-08-1998 14-11-1995 15-04-1997 02-02-1995 07-05-1997 09-10-1997 07-10-1992 30-09-1997 15-02-1999 04-01-1996 18-02-1992 25-01-1992 04-03-1999 16-09-1999 13-09-1999 12-05-1993 16-05-1999 30-07-1999 24-02-1994 06-02-1992 23-05-1995 24-07-1991 23-06-1991 22-09-1997 01-07-1997 25-10-1999 05-08-1993 18-04-1995 11-07-1991 15-08-1998 28-08-1997 01-09-1994 24-02-1994 24-07-1991 23-06-1991 10-09-1998 15-04-1999 03-05-1999 07-10-1992 16-12-1998 27-08-1998 02-09-1997 09-07-1998 29-07-1993	
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